

Patent Abstracts of Japan

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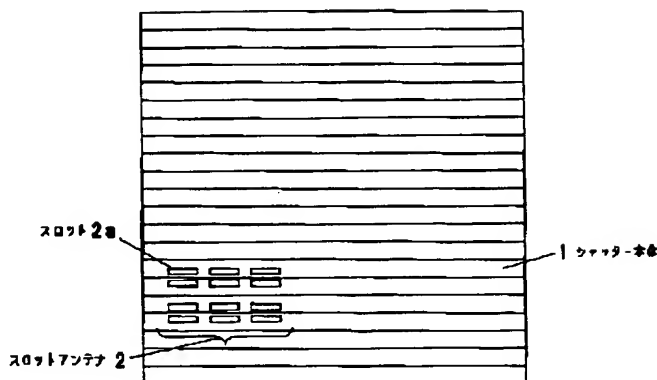
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APPLICANT : MATSUSHITA ELECTRIC WORKS LTD;

INVENTOR : FUJII TAKASHI;

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TITLE : SHUTTER WITH ANTENNA



ABSTRACT : PROBLEM TO BE SOLVED: To make it possible to use a radio equipment even in the closed state of a shutter without losing a function included in the shutter by forming a radio wave transmission window to be resonated with a radio wave on a shutter body and reradiating a received radio wave to the opposite side through the window.

SOLUTION: A slot antenna 2 is formed on the shutter body 1, the shutter body 1 having the original function of a shutter is formed by a metal and has structure to be sealed when it is closed. The slot antenna 2 is constituted of plural slots 2a and the shape and size of each slot 2a are determined by frequency to be used by the radio equipment. In practice, the shape and size is determined by assuming that the part of the slot 2a is air. The antenna 2 is arranged on a low position of the body 1 in consideration of a smoke shielding effect at the time of a fire. A fireproofing substance capable of passing a radio wave at a low loss is inserted into each slot 2a to improve the fireproofing performance of the shutter body 1.

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